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**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Parts 52 and 81**

**[EPA-R04-OAR-2011-0316-201156; FRL-9489-7]**

**Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; Alabama; Redesignation of the Birmingham 1997 Annual Fine Particulate Matter Nonattainment Area to Attainment**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** On May 2, 2011, the State of Alabama, through the Alabama Department of Environmental Management (ADEM), Air Division, submitted a request for EPA to redesignate the Birmingham fine particulate matter (PM<sub>2.5</sub>) nonattainment area (hereafter referred to as the “Birmingham Area” or “Area”) to attainment for the 1997 Annual PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS); and to approve a State Implementation Plan (SIP) revision containing a maintenance plan for the Area. The Birmingham 1997 Annual PM<sub>2.5</sub> nonattainment area is comprised of Jefferson and Shelby Counties in their entireties and a portion of Walker County. EPA is proposing to approve the redesignation request for the Birmingham Area, along with the related SIP revision, including Alabama’s 2009 emissions inventory for the Area and Alabama’s plan for maintaining attainment of the PM<sub>2.5</sub> standard in the Area. EPA is also proposing to approve the motor vehicle emission budgets (MVEBs) for nitrogen oxides (NO<sub>x</sub>)

and PM<sub>2.5</sub> for the year 2024 for the Birmingham Area. These actions are being proposed pursuant to the Clean Air Act (CAA or Act) and its implementing regulations.

**DATES:** Comments must be received on or before [insert date 30 days after date of publication in the Federal Register].

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R04-OAR-2011-0316, by one of the following methods:

1. [www.regulations.gov](http://www.regulations.gov): Follow the on-line instructions for submitting comments.
2. E-mail: [benjamin.lynorae@epa.gov](mailto:benjamin.lynorae@epa.gov).
3. Fax: (404) 562-9019.
4. Mail: EPA-R04-OAR-2011-0316, Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960.
5. Hand Delivery or Courier: Ms. Lynorae Benjamin, Chief, Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. Such deliveries are only accepted during the Regional Office's normal hours of operation. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30, excluding Federal holidays.

*Instructions:* Direct your comments to Docket ID No. EPA-R04-OAR-2011-0316. EPA's policy

is that all comments received will be included in the public docket without change and may be made available online at [www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit through [www.regulations.gov](http://www.regulations.gov) or e-mail, information that you consider to be CBI or otherwise protected. The [www.regulations.gov](http://www.regulations.gov) website is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov), your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA’s public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

*Docket:* All documents in the electronic docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in [www.regulations.gov](http://www.regulations.gov) or

in hard copy at the Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. EPA requests that if at all possible, you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30, excluding Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Joel Huey of the Regulatory Development Section, in the Air Planning Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. Joel Huey may be reached by phone at (404) 562-9104, or via electronic mail at [huey.joel@epa.gov](mailto:huey.joel@epa.gov).

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**I. What are the Actions EPA is Proposing to Take?**

EPA is proposing to take the following three separate but related actions, some of which involve multiple elements: (1) to redesignate the Birmingham Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS, provided EPA approves the emissions inventory submitted with the maintenance plan; (2) to approve, under CAA section 172(c)(3), the emissions inventory submitted with the maintenance plan; and (3) to approve into the Alabama SIP, under section 175A of the CAA, Alabama's 1997 Annual PM<sub>2.5</sub> NAAQS maintenance plan, including the associated MVEBs (EPA is also notifying the public of the status of EPA's adequacy determination for the Birmingham Area MVEBs for the PM<sub>2.5</sub> NAAQS). These actions are summarized below and described in greater detail throughout this notice of proposed rulemaking.

First, EPA proposes to determine that, if EPA finalizes approval of the 2009 baseline emissions inventory for the Birmingham Area, the Area has met the requirements for redesignation under section 107(d)(3)(E) of the CAA. In this action, EPA is proposing to approve a request to change the legal designation of Jefferson and Shelby Counties in their entireties and the designated portion of Walker County in the Birmingham Area from nonattainment to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS. As discussed below, the emissions inventory is being proposed for approval today.

Second, EPA is proposing to approve Alabama's 2009 emissions inventory for the Birmingham Area (under CAA section 172(c)(3)). Alabama selected 2009 as the attainment emissions inventory year for the Birmingham Area. This attainment inventory identifies a level of emissions in the Area that is sufficient to attain the 1997 Annual PM<sub>2.5</sub> NAAQS and is a current, comprehensive inventory that meets the requirements of section 172(c)(3).

Third, EPA is proposing to approve Alabama's 1997 Annual PM<sub>2.5</sub> NAAQS maintenance plan for the Birmingham Area as meeting the requirements of section 175A (such approval being one of the CAA criteria for redesignation to attainment status). The recently promulgated Cross State Air Pollution Rule (CSAPR)<sup>1</sup> requires reductions of NO<sub>x</sub> and SO<sub>2</sub> associated with power plants to be permanent and enforceable. The maintenance plan is designed to help keep the Birmingham Area in attainment of the 1997 Annual PM<sub>2.5</sub> NAAQS through 2024. Consistent with the CAA, the maintenance plan that EPA is proposing to approve today also includes NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for the year 2024 for the Birmingham Area. EPA is proposing to approve

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<sup>1</sup> See "Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone in 27 States; Correction of SIP Approvals for 22 States" (76 FR 48208, August 8, 2011).

(into the Alabama SIP) the 2024 MVEBs that are included as part of Alabama's maintenance plan for the 1997 Annual PM<sub>2.5</sub> NAAQS.

On a matter related matter to this third action, EPA is also notifying the public of the status of EPA's adequacy process for the newly-established NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for 2024 for the Birmingham Area. The Adequacy comment period for the Birmingham Area 2024 MVEBs began on March 24, 2011, with EPA's posting of the availability of this submittal on EPA's Adequacy website (<http://www.epa.gov/otaq/stateresources/transconf/currsips.htm>). The Adequacy comment period for these MVEBs closed on April 25, 2011. No adverse comments were received during the Adequacy public comment period. Please see section VII of this proposed rulemaking for further explanation of this process and for more details on the MVEBs.

Today's notice of proposed rulemaking is in response to Alabama's May 2, 2011, SIP submittal. That document addresses the specific issues summarized above and the necessary elements described in section 107(d)(3)(E) of the CAA for redesignation of the Birmingham Area to attainment of the 1997 Annual PM<sub>2.5</sub> NAAQS.

## **II. What is the Background for EPA's Proposed Actions?**

Fine particle pollution can be emitted directly or formed secondarily in the atmosphere. The main precursors of PM<sub>2.5</sub> are sulfur dioxide (SO<sub>2</sub>), NO<sub>x</sub>, ammonia and volatile organic compounds (VOC). Unless otherwise noted by the State or EPA, ammonia and VOCs are presumed to be insignificant contributors to PM<sub>2.5</sub> formation, whereas SO<sub>2</sub> and NO<sub>x</sub> are presumed to be significant contributors to PM<sub>2.5</sub> formation. Sulfates are a type of secondary particle formed from SO<sub>2</sub> emissions of power plants and industrial facilities. Nitrates, another

common type of secondary particle, are formed from NO<sub>x</sub> emissions of power plants, automobiles, and other combustion sources.

On July 18, 1997, EPA promulgated the first air quality standards for PM<sub>2.5</sub>. EPA promulgated an annual standard at a level of 15.0 micrograms per cubic meter (µg/m<sup>3</sup>), based on a 3-year average of annual mean PM<sub>2.5</sub> concentrations. In the same rulemaking, EPA promulgated a 24-hour standard of 65 µg/m<sup>3</sup>, based on a 3-year average of the 98<sup>th</sup> percentile of 24-hour concentrations. On October 17, 2006, at 71 FR 61144, EPA retained the annual average NAAQS at 15.0 µg/m<sup>3</sup> but revised the 24-hour NAAQS to 35 µg/m<sup>3</sup>, based again on the 3-year average of the 98<sup>th</sup> percentile of 24-hour concentrations.<sup>2</sup> Under EPA regulations at 40 CFR part 50, the primary and secondary 1997 Annual PM<sub>2.5</sub> NAAQS are attained when the annual arithmetic mean concentration, as determined in accordance with 40 CFR part 50, Appendix N, is less than or equal to 15.0 µg/m<sup>3</sup> at all relevant monitoring sites in the subject area over a 3-year period.

On January 5, 2005, at 70 FR 944, and supplemented on April 14, 2005, at 70 FR 19844, EPA designated the Birmingham Area as nonattainment for the 1997 PM<sub>2.5</sub> NAAQS based upon air quality data for calendar years 2001-2003. In that action, EPA defined the 1997 PM<sub>2.5</sub> Birmingham nonattainment area to include Jefferson and Shelby Counties in their entireties and a portion Walker County. On November 13, 2009, at 74 FR 58688, EPA promulgated designations for the 2006 PM<sub>2.5</sub> NAAQS, designating the Birmingham Area (with the same boundaries as for the 1997 PM<sub>2.5</sub> nonattainment area) as nonattainment for the 2006 24-hour

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<sup>2</sup> In response to legal challenges of the annual standard promulgated in 2006, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) remanded this NAAQS to EPA for further consideration. *See American Farm Bureau Federation and National Pork Producers Council, et al. v. EPA*, 559 F.3d 512 (D.C. Circuit 2009). However, given that the 1997 and 2006 Annual NAAQS are essentially identical, attainment of the 1997 Annual NAAQS would also indicate attainment of the remanded 2006 Annual NAAQS.

PM<sub>2.5</sub> NAAQS based upon air quality data for calendar years 2006-2008. That action also clarified that the Birmingham Area was classified unclassifiable/attainment for the 1997 24-hour PM<sub>2.5</sub> NAAQS. EPA did not promulgate designations for the annual average NAAQS promulgated in 2006 since that NAAQS was essentially identical to the 1997 Annual PM<sub>2.5</sub> NAAQS. Therefore, the Birmingham Area is designated nonattainment for the Annual NAAQS promulgated in 1997 and for the 24-hour NAAQS promulgated in 2006. Today's action only addresses the designation for the Annual NAAQS promulgated in 1997.

All 1997 PM<sub>2.5</sub> NAAQS areas were designated under subpart 1 of title I, part D, of the CAA. Subpart 1 contains the general requirements for nonattainment areas for any pollutant governed by a NAAQS and is less prescriptive than the other subparts of title I, part D. On April 25, 2007 (72 FR 20664), EPA promulgated its PM<sub>2.5</sub> implementation rule, codified at 40 CFR part 51, subpart Z, in which the Agency provided guidance for state and tribal plans to implement the PM<sub>2.5</sub> NAAQS. This rule, at 40 CFR 51.1004(c), specifies some of the regulatory impacts of attaining the NAAQS, as discussed below.

On May 12, 2005, EPA published the Clean Air Interstate Rule (CAIR), which addressed the interstate transport requirements of the CAA and required states to significantly reduce SO<sub>2</sub> and NO<sub>x</sub> emissions from power plants (70 FR 25162). The associated Federal Implementation Plans (FIPs) were published on April 28, 2006 (71 FR 25328). However, on July 11, 2008, the D.C. Circuit Court issued its decision to vacate and remand both CAIR and the associated CAIR FIPs in their entirety (*North Carolina v. EPA*, 531 F.3d 836 (D.C. Cir., 2008)). EPA petitioned for rehearing, and the Court issued an order remanding CAIR to EPA without vacating either CAIR or the CAIR FIPs (*North Carolina v. EPA*, 550 F.3d 1176 (D.C. Cir., 2008)). The Court

left CAIR in place to “temporarily preserve the environmental values covered by CAIR” until EPA replaces it with a rule consistent with the Court's opinion. *Id.* at 1178. The Court directed EPA to “remedy CAIR's flaws” consistent with its July 11, 2008, opinion but declined to impose a schedule on EPA for completing that action. *Id.* As a result of these court rulings, the power plant emission reductions that resulted solely from the development, promulgation, and implementation of CAIR, and the associated contribution to air quality improvement that occurred solely as a result of CAIR in the Birmingham Area could not be considered to be permanent.

On August 8, 2011, EPA published CSAPR in the Federal Register under the title, “Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone in 27 States; Correction of SIP Approvals for 22 States” (76 FR 48208, August 8, 2011) to address interstate transport of emissions and resulting secondary air pollutants and to replace CAIR. The CAIR emission reduction requirements limit emissions in Alabama and states upwind of Alabama through 2011, and CSAPR requires similar or greater reductions in the relevant areas in 2012 and beyond. The emission reductions that CSAPR mandates may be considered to be permanent and enforceable. In turn, the air quality improvement in the Birmingham Area that has resulted from electric generating units (EGUs) emission reductions associated with CAIR (as well as the additional air quality improvement that would be expected to result from full implementation of CSAPR) may also be considered to be permanent and enforceable. EPA proposes that the requirement in section 107(d)(3)(E)(iii) has now been met because the emission reduction requirements of CAIR address emissions through 2011 and EPA has now promulgated CSAPR, which requires similar or greater reductions in the relevant areas

in 2012 and beyond. Because the emission reduction requirements of CAIR are enforceable through the 2011 control period, and because CSAPR has now been promulgated to address the requirements previously addressed by CAIR and gets similar or greater reductions in the relevant areas in 2012 and beyond, EPA is proposing to determine that the pollutant transport part of the reductions that led to attainment in the Birmingham Area can now be considered permanent and enforceable. Therefore, EPA proposes to find that the transport requirement of CAA section 107(d)(3)(E)(iii) has been met for the Birmingham Area.

The 3-year ambient air quality data for 2008-2010 indicated no violations of the 1997 PM<sub>2.5</sub> NAAQS for the Birmingham Area. As a result, on May 2, 2011, Alabama requested redesignation of the Birmingham Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS. The redesignation request included three years of complete, quality-assured ambient air quality data for the 1997 Annual PM<sub>2.5</sub> NAAQS for 2008-2010, indicating that the 1997 Annual PM<sub>2.5</sub> NAAQS had been achieved for the Birmingham Area. Under the CAA, nonattainment areas may be redesignated to attainment if sufficient, complete, quality-assured data is available for the Administrator to determine that the area has attained the standard and the area meets the other CAA redesignation requirements in section 107(d)(3)(E). From 2008 through the present, the annual PM<sub>2.5</sub> design values for the Birmingham Area have declined. While annual PM<sub>2.5</sub> concentrations are dependent on a variety of conditions, the overall downtrend in PM<sub>2.5</sub> concentrations in the Birmingham Area can be attributed to the reduction of emissions, as will be discussed in more detail in section V of this proposed rulemaking.

### **III. What are the Criteria for Redesignation?**

The CAA provides the requirements for redesignating a nonattainment area to attainment. Specifically, section 107(d)(3)(E) of the CAA allows for redesignation providing the following criteria are met: (1) the Administrator determines that the area has attained the applicable NAAQS; (2) the Administrator has fully approved the applicable implementation plan for the area under section 110(k); (3) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable SIP and applicable Federal air pollutant control regulations and other permanent and enforceable reductions; (4) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 175A; and (5) the state containing such area has met all requirements applicable to the area under section 110 and part D of title I of the CAA.

EPA has provided guidance on redesignation in the General Preamble for the Implementation of title I of the CAA Amendments of 1990 (April 16, 1992, 57 FR 13498, and supplemented on April 28, 1992, 57 FR 18070) and has provided further guidance on processing redesignation requests in the following documents:

1. “Procedures for Processing Requests to Redesignate Areas to Attainment,” Memorandum from John Calcagni, Director, Air Quality Management Division, September 4, 1992 (hereafter referred to as the “Calcagni Memorandum”);
2. “State Implementation Plan (SIP) Actions Submitted in Response to Clean Air Act (CAA) Deadlines,” Memorandum from John Calcagni, Director, Air Quality Management Division, October 28, 1992; and

3. “Part D New Source Review (Part D NSR) Requirements for Areas Requesting Redesignation to Attainment,” Memorandum from Mary D. Nichols, Assistant Administrator for Air and Radiation, October 14, 1994.

#### **IV. Why is EPA Proposing These Actions?**

On May 2, 2011, the State of Alabama, through ADEM, requested the redesignation of the Birmingham Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS. EPA’s evaluation indicates that the Birmingham Area has attained the 1997 Annual PM<sub>2.5</sub> NAAQS and meets the requirements for redesignation set forth in section 107(d)(3)(E), including the maintenance plan requirements under section 175A of the CAA. As a result, EPA is proposing to take the three related actions summarized in section I of this notice.

#### **V. What is EPA’s Analysis of the Request?**

As stated above, in accordance with the CAA, EPA proposes in today’s action to: (1) redesignate the Birmingham Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS; (2) approve the Birmingham Area emissions inventory submitted with the maintenance plan; and (3) approve into the Alabama SIP Birmingham’s 1997 Annual PM<sub>2.5</sub> NAAQS maintenance plan, including the associated MVEBs. These actions are based upon EPA’s determination that the Birmingham Area continues to attain the 1997 Annual PM<sub>2.5</sub> NAAQS and that all other redesignation criteria have been met for the Birmingham Area, provided EPA approves the emissions inventory

submitted with the maintenance plan. The five redesignation criteria provided under CAA section 107(d)(3)(E) are discussed in greater detail for the Area in the following paragraphs of this section.

**Criteria (1) - *The Birmingham Area has attained the 1997 Annual PM<sub>2.5</sub> NAAQS.***

For redesignating a nonattainment area to attainment, the CAA requires EPA to determine that the area has attained the applicable NAAQS (CAA section 107(d)(3)(E)(i)). EPA is proposing to determine that the Birmingham Area continues to attain the 1997 Annual PM<sub>2.5</sub> NAAQS. For PM<sub>2.5</sub>, an area may be considered to be attaining the 1997 Annual PM<sub>2.5</sub> NAAQS if it meets the 1997 Annual PM<sub>2.5</sub> NAAQS, as determined in accordance with 40 CFR 50.13 and Appendix N of part 50, based on three complete, consecutive calendar years of quality-assured air quality monitoring data. To attain these NAAQS, the annual arithmetic mean concentration, as determined in accordance with 40 CFR part 50, Appendix N, is less than or equal to 15.0 µg/m<sup>3</sup> at all relevant monitoring sites in the subject area over a 3-year period. The relevant data must be collected and quality-assured in accordance with 40 CFR part 58 and recorded in the EPA Air Quality System (AQS). The monitors generally should have remained at the same location for the duration of the monitoring period required for demonstrating attainment.

On June 29, 2011, at 76 FR 38023, EPA determined that the Birmingham Area was attaining the 1997 Annual PM<sub>2.5</sub> NAAQS. For that action EPA reviewed PM<sub>2.5</sub> monitoring data from monitoring stations in the Birmingham Area for the 1997 Annual PM<sub>2.5</sub> NAAQS for 2008-2010. These data have been quality-assured and are recorded in AQS. EPA has reviewed more recent data which indicates that the Birmingham Area continues to attain the 1997 Annual PM<sub>2.5</sub>

NAAQS beyond the submitted 3-year attainment period of 2008-2010. The annual arithmetic mean of the PM<sub>2.5</sub> concentrations for 2008-2010 and the 3-year average of these values (i.e., design values) are summarized in Table 1.

**Table 1. Design Value Concentrations for the Birmingham 1997 Annual PM<sub>2.5</sub> Area (µg/m<sup>3</sup>)**

Location	County	Monitor ID	Annual Arithmetic Mean Concentrations			3-Year Design Values
			2008	2009	2010	2008-2010
North Birmingham	Jefferson	01-073-0023	15.5	11.7	13.8	13.7
McAdory	Jefferson	01-073-1005	12.2	10.4	11.8	11.5
Bruce Shaw Road (Providence)	Jefferson	01-073-1009	10.8	9.6	10.1	10.2
Asheville Road (Leeds)	Jefferson	01-073-1010	13.2	10.3	12.1	11.9
Wylam	Jefferson	01-073-2003	14.4	11.3	12.4	12.7
Hoover	Jefferson	01-073-2006	12.1	10.3	11.8	11.4
Pinson High School	Jefferson	01-073-5002	11.9	9.9	11.0	10.9
Corner School Road	Jefferson	01-073-5003	11.5	9.7	10.7	10.6
Pelham High School	Shelby	01-117-0006	11.6	9.8	13.9	10.9
Highland Avenue (Walker Co.)	Walker	01-127-0002	11.7	10.1	11.3	11.0

The 3-year design value for 2008-2010 submitted by Alabama for redesignation of the Birmingham Area is 13.7 µg/m<sup>3</sup>, which meets the NAAQS as described above. Data available to date in AQS for 2011, which have not yet been certified, indicate the Birmingham Area continues to attain the 1997 Annual PM<sub>2.5</sub> NAAQS and that ambient annual concentrations of

PM<sub>2.5</sub> continue to decline. As mentioned above, on June 29, 2011 (76 FR 38023) EPA published a clean data determination for the Birmingham Area for the 1997 Annual PM<sub>2.5</sub> NAAQS. In today's action, EPA is proposing to determine that the Area is continuing to attain the 1997 PM<sub>2.5</sub> NAAQS. EPA will not go forward with the redesignation if the Area does not continue to attain until the time that EPA finalizes the redesignation. As discussed in more detail below, the State of Alabama has committed to continue monitoring in this Area in accordance with 40 CFR part 58.

***Criteria (5) – Alabama has met all Applicable Requirements under section 110 and part D of title I of the CAA; and Criteria (2) – Alabama has a fully approved SIP under section 110(k) for the Birmingham Area.***

For redesignating a nonattainment area to attainment, the CAA requires EPA to determine that the state has met all applicable requirements under section 110 and part D of title I of the CAA (CAA section 107(d)(3)(E)(v)) and that the state has a fully approved SIP under section 110(k) for the area (CAA section 107(d)(3)(E)(ii)). EPA proposes to find that Alabama has met all applicable SIP requirements for the Birmingham Area under section 110 of the CAA (general SIP requirements) for purposes of redesignation. Additionally, EPA proposes to find that the Alabama SIP satisfies the criterion that it meet applicable SIP requirements for purposes of redesignation under part D of title I of the CAA (requirements specific to 1997 Annual PM<sub>2.5</sub> nonattainment areas) in accordance with section 107(d)(3)(E)(v). Further, EPA proposes to determine that the SIP is fully approved with respect to all requirements applicable for purposes of redesignation in accordance with section 107(d)(3)(E)(ii). In making these determinations,

EPA ascertained which requirements are applicable to the Area and, if applicable, that they are fully approved under section 110(k). SIPs must be fully approved only with respect to requirements that were applicable prior to submittal of the complete redesignation request.

a. *The Birmingham Area has met all applicable requirements under section 110 and part D of the CAA.*

*General SIP requirements.* Section 110(a)(2) of title I of the CAA delineates the general requirements for a SIP, which include enforceable emissions limitations and other control measures, means, or techniques; provisions for the establishment and operation of appropriate devices necessary to collect data on ambient air quality; and programs to enforce the limitations. General SIP elements and requirements are delineated in section 110(a)(2) of title I, part A of the CAA. These requirements include, but are not limited to, the following: submittal of a SIP that has been adopted by the state after reasonable public notice and hearing; provisions for establishment and operation of appropriate procedures needed to monitor ambient air quality; implementation of a source permit program; provisions for the implementation of part C requirements (Prevention of Significant Deterioration (PSD)) and provisions for the implementation of part D requirements (New Source Review (NSR) permit programs); provisions for air pollution modeling; and provisions for public and local agency participation in planning and emission control rule development.

Section 110(a)(2)(D) requires that SIPs contain certain measures to prevent sources in a state from significantly contributing to air quality problems in another state. To implement this provision, EPA has required certain states to establish programs to address the interstate

transport of air pollutants (e.g., NO<sub>x</sub> SIP Call,<sup>3</sup> CAIR,<sup>4</sup> and CSAPR). The section 110(a)(2)(D) requirements for a state are not linked with a particular nonattainment area's designation and classification in that state. EPA believes that the requirements linked with a particular nonattainment area's designation and classifications are the relevant measures to evaluate in reviewing a redesignation request. The transport SIP submittal requirements, where applicable, continue to apply to a state regardless of the designation of any one particular area in the state. Thus, EPA does not believe that the CAA's interstate transport requirements should be construed to be applicable requirements for purposes of redesignation. However, as discussed later in this notice, addressing pollutant transport from other states is an important part of an area's maintenance demonstration.

In addition, EPA believes other section 110 elements that are neither connected with nonattainment plan submissions nor linked with an area's attainment status are applicable requirements for purposes of redesignation. The area will still be subject to these requirements after the area is redesignated. The section 110 and part D requirements which are linked with a particular area's designation and classification are the relevant measures to evaluate in reviewing a redesignation request. This approach is consistent with EPA's existing policy on applicability

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<sup>3</sup> On October 27, 1998 (63 FR 57356), EPA issued a NO<sub>x</sub> SIP Call requiring the District of Columbia and 22 states to reduce emissions of NO<sub>x</sub> in order to reduce the transport of ozone and ozone precursors. In compliance with EPA's NO<sub>x</sub> SIP Call, Alabama developed rules governing the control of NO<sub>x</sub> emissions from EGUs, major non-EGU industrial boilers, major cement kilns, and internal combustion engines. On December 27, 2002, EPA approved Alabama's rules as fulfilling Phase I (67 FR 78987).

<sup>4</sup> On May 12, 2005 (70 FR 25162), EPA promulgated CAIR, which required 28 upwind States and the District of Columbia to revise their SIPs to include control measures that would reduce emissions of SO<sub>2</sub> and NO<sub>x</sub>. Various aspects of CAIR rule were petitioned in court and on December 23, 2008, the U.S. Court of Appeals for the District of Columbia Circuit remanded CAIR to EPA (*see Alabama v. EPA*, 550 F.3d 1176 (D.C. Circuit, December 23, 2008)), which left CAIR in place to "temporarily preserve the environmental values covered by CAIR" until EPA replaces it with a rule consistent with the Court's ruling. The Court directed EPA to remedy various areas of the rule that were petitioned consistent with its July 11, 2008 (*see Alabama v. EPA*, 531 F.3d 836 (D.C. Circuit, July 11, 2008)), opinion, but declined to impose a schedule on EPA for completing that action. *Id.* Therefore, CAIR is currently in effect in Alabama.

(i.e., for redesignations) of conformity and oxygenated fuels requirements, as well as with section 184 ozone transport requirements. See Reading, Pennsylvania, proposed and final rulemakings (61 FR 53174-53176, October 10, 1996), (62 FR 24826, May 7, 1997); Cleveland-Akron-Loraine, Ohio, final rulemaking (61 FR 20458, May 7, 1996); and Tampa, Florida, final rulemaking at (60 FR 62748, December 7, 1995). See also the discussion on this issue in the Cincinnati, Ohio, redesignation (65 FR 37890, June 19, 2000), and in the Pittsburgh, Pennsylvania, redesignation (66 FR 50399, October 19, 2001).

EPA has not yet completed rulemaking on a submittal from Alabama dated September 23, 2009, addressing “infrastructure SIP” elements required under CAA section 110(a)(2). However, these are statewide requirements that are not a consequence of the nonattainment status of the Birmingham Area. As stated above, EPA believes that section 110 elements not linked to an area’s nonattainment status are not applicable for purposes of redesignation. Therefore, notwithstanding the fact that EPA has not yet completed rulemaking on Alabama’s submittal for the PM<sub>2.5</sub> infrastructure SIP elements of section 110(a)(2), EPA believes it has approved all SIP elements under section 110 that must be approved as a prerequisite for redesignating the Birmingham Area to attainment.

*Title I, Part D requirements.* EPA proposes that if EPA approves Alabama’s base year emissions inventory, which is part of the maintenance plan submittal, the Alabama SIP will meet applicable SIP requirements under part D of the CAA. As discussed in greater detail below, EPA believes the emissions inventory is approvable because the 2009 direct PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions for Alabama were developed consistent with EPA guidance for emissions

inventories and represent a comprehensive, accurate and current inventory as required by CAA section 172(c)(3).

*Part D, subpart 1 applicable SIP requirements.* EPA has determined that if the approval of the base year emissions inventory, discussed in section VIII of this rulemaking, is finalized, the Alabama SIP will meet the applicable SIP requirements for the Birmingham Area for purposes of redesignation under title I, part D of the CAA. Subpart 1 of part D sets forth the basic nonattainment requirements applicable to all nonattainment areas. All areas that were designated nonattainment for the 1997 Annual PM<sub>2.5</sub> NAAQS were designated under this subpart of the CAA and the requirements applicable to them are contained in sections 172 and 176.

For purposes of evaluating this redesignation request, the applicable part D, subpart 1 SIP requirements for all nonattainment areas are contained in sections 172(c)(1)-(9) and in section 176. A thorough discussion of the requirements contained in section 172 can be found in the General Preamble for Implementation of title I (57 FR 13498, April 16, 1992).

*Subpart 1 Section 172 Requirements.* Section 172(c)(1) requires the plans for all nonattainment areas to provide for the implementation of all Reasonable Available Control Measures (RACM) as expeditiously as practicable and to provide for attainment of the national primary ambient air quality standards. EPA interprets this requirement to impose a duty on all nonattainment areas to consider all available control measures and to adopt and implement such measures as are reasonably available for implementation in each area as components of the area's attainment demonstration. Under section 172, states with nonattainment areas must submit plans providing for timely attainment and meeting a variety of other requirements. However, pursuant to 40 CFR 51.1004(c), EPA's June 29, 2011, determination that the

Birmingham area was attaining the Annual PM<sub>2.5</sub> standard suspended Alabama's obligation to submit most of the attainment planning requirements that would otherwise apply. Specifically, the determination of attainment suspended Alabama's obligation to submit an attainment demonstration and planning SIPs to provide for reasonable further progress (RFP), RACM, and contingency measures under section 172(c)(9).

The General Preamble for Implementation of Title I (57 FR 13498, April 16, 1992) also discusses the evaluation of these requirements in the context of EPA's consideration of a redesignation request. The General Preamble sets forth EPA's view of applicable requirements for purposes of evaluating redesignation requests when an area is attaining a standard (General Preamble for Implementation of Title I (57 FR 13498, April 16, 1992)).

Because attainment has been reached in the Birmingham Area, no additional measures are needed to provide for attainment, and section 172(c)(1) requirements for an attainment demonstration and RACM are no longer considered to be applicable for purposes of redesignation as long as the Area continues to attain the standard until redesignation. See also 40 CFR section 51.1004(c).

The RFP plan requirement under section 172(c)(2) is defined as progress that must be made toward attainment. This requirement is not relevant for purposes of redesignation because EPA has determined that the Birmingham Area has monitored attainment of the 1997 Annual PM<sub>2.5</sub> NAAQS. *See* General Preamble, 57 FR 13564. *See* also 40 CFR 51.1004 (c). In addition, because the Birmingham Area has attained the 1997 Annual PM<sub>2.5</sub> NAAQS and is no longer subject to a RFP requirement, the requirement to submit the section 172(c)(9) contingency measures is not applicable for purposes of redesignation. *Id.*

Section 172(c)(3) requires submission and approval of a comprehensive, accurate, and current inventory of actual emissions. As part of Alabama's redesignation request for the Birmingham Area, Alabama submitted a 2009 base year emissions inventory. As discussed below in section VIII, EPA is proposing to approve the 2009 base year inventory submitted with the redesignation request as meeting the section 172(c)(3) emissions inventory requirement.

Section 172(c)(4) requires the identification and quantification of emissions for major new and modified stationary sources to be allowed in an area, and section 172(c)(5) requires source permits for the construction and operation of new and modified major stationary sources anywhere in the nonattainment area. EPA has determined that, since PSD requirements will apply after redesignation, areas being redesignated need not comply with the requirement that a NSR program be approved prior to redesignation, provided that the area demonstrates maintenance of the NAAQS without part D NSR. A more detailed rationale for this view is described in a memorandum from Mary Nichols, Assistant Administrator for Air and Radiation, dated October 14, 1994, entitled, "Part D New Source Review Requirements for Areas Requesting Redesignation to Attainment." Alabama has demonstrated that the Birmingham Area will be able to maintain the NAAQS without part D NSR in effect, and therefore Alabama need not have fully approved part D NSR programs prior to approval of the redesignation request. Nonetheless, Alabama currently has a fully-approved part D NSR program in place. Alabama's PSD program will become effective in the Birmingham Area upon redesignation to attainment. Section 172(c)(6) requires the SIP to contain control measures necessary to provide for attainment of the NAAQS. Because attainment has been reached, no additional measures are needed to provide for attainment.

Section 172(c)(7) requires the SIP to meet the applicable provisions of section 110(a)(2). As noted above, EPA believes the Alabama SIP meets the requirements of section 110(a)(2) applicable for purposes of redesignation.

*Section 176 Conformity Requirements.* Section 176(c) of the CAA requires states to establish criteria and procedures to ensure that federally supported or funded projects conform to the air quality planning goals in the applicable SIP. The requirement to determine conformity applies to transportation plans, programs and projects that are developed, funded or approved under title 23 of the United States Code (U.S.C.) and the Federal Transit Act (transportation conformity) as well as to all other federally supported or funded projects (general conformity). State transportation conformity SIP revisions must be consistent with Federal conformity regulations relating to consultation, enforcement and enforceability that EPA promulgated pursuant to its authority under the CAA.

EPA interprets the conformity SIP requirements<sup>5</sup> as not applying for purposes of evaluating a redesignation request under section 107(d) because state conformity rules are still required after redesignation and Federal conformity rules apply where state rules have not been approved. *See Wall v. EPA*, 265 F.3d 426 (6<sup>th</sup> Cir. 2001) (upholding this interpretation); *see also* 60 FR 62748 (December 7, 1995) (redesignation of Tampa, Florida). Thus, the Birmingham Area has satisfied all applicable requirements for purposes of redesignation under section 110 and part D of title I of the CAA.

*b. The Birmingham Area has a fully approved applicable SIP under section 110(k) of the CAA.*

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<sup>5</sup> CAA Section 176(c)(4)(E) requires states to submit revisions to their SIPs to reflect certain Federal criteria and procedures for determining transportation conformity. Transportation conformity SIPs are different from the MVEBs that are established in control strategy SIPs and maintenance plans.

If EPA issues a final approval of the base year emissions inventory, EPA will have fully approved the applicable Alabama SIP for the Birmingham 1997 Annual PM<sub>2.5</sub> nonattainment area under section 110(k) of the CAA for all requirements applicable for purposes of redesignation. EPA may rely on prior SIP approvals in approving a redesignation request (*see* Calcagni Memorandum at p. 3; *Southwestern Pennsylvania Growth Alliance v. Browner*, 144 F.3d 984, 989-90 (6<sup>th</sup> Cir. 1998); *Wall*, 265 F.3d 426) plus any additional measures it may approve in conjunction with a redesignation action (*see* 68 FR 25426 (May 12, 2003) and citations therein). Following passage of the CAA of 1970, Alabama has adopted and submitted, and EPA has fully approved at various times, provisions addressing the various 1997 Annual PM<sub>2.5</sub> NAAQS SIP elements applicable in the Birmingham Area (May 31, 1972, 37 FR 10842; July 13, 2011, 76 FR41100).

As indicated above, EPA believes that the section 110 elements that are neither connected with nonattainment plan submissions nor linked to an area's nonattainment status are not applicable requirements for purposes of redesignation. In addition, EPA believes that since the part D subpart 1 requirements did not become due prior to submission of the redesignation request, they are also not applicable requirements for purposes of redesignation. *Sierra Club v. EPA*, 375 F.3d 537 (7<sup>th</sup> Cir. 2004); 68 FR 25424, 25427 (May 12, 2003) (redesignation of the St. Louis-East St. Louis Area to attainment of the 1-hour ozone NAAQS). With the approval of the emissions inventory, EPA will have approved all Part D subpart 1 requirements applicable for purposes of this redesignation.

***Criteria (3) - The air quality improvement in the Birmingham 1997 Annual PM<sub>2.5</sub> NAAQS Nonattainment Area is due to permanent and enforceable reductions in emissions resulting from implementation of the SIP and applicable Federal air pollution control regulations and other permanent and enforceable reductions.***

For redesignating a nonattainment area to attainment, the CAA requires EPA to determine that the air quality improvement in the area is due to permanent and enforceable reductions in emissions resulting from implementation of the SIP and applicable Federal air pollution control regulations and other permanent and enforceable reductions (CAA section 107(d)(3)(E)(iii)). EPA believes that Alabama has demonstrated that the observed air quality improvement in the Birmingham Area is due to permanent and enforceable reductions in emissions resulting from implementation of the SIP, Federal measures, and other state adopted measures.

State, local and Federal measures enacted in recent years have resulted in permanent emission reductions. Most of these emission reductions are enforceable through regulations. A few non-regulatory measures also result in emission reductions.

The state and local measures that have been implemented to date and relied upon by Alabama to demonstrate attainment and/or maintenance include local NO<sub>x</sub> controls on cement plants in the Area due to the 8-hour ozone contingency plan, Jefferson and Shelby County burn bans, and voluntary on-road and off-road diesel retrofit projects.

As shown in Table 2, below, reasonably available control technology (RACT) PM controls installed in the Birmingham Area have reduced direct PM<sub>2.5</sub> emissions by approximately

62 tons per year (tpy) as of the end of 2009. These controls are associated with the Birmingham Annual PM<sub>2.5</sub> Attainment Demonstration SIP, submitted to EPA on March 13, 2009.

**Table 2. Summary of RACT Controls in the Birmingham Area**

<b>Facility</b>	<b>Source</b>	<b>RACT Controls</b>	<b>PM<sub>2.5</sub> reduction (tpy)</b>	<b>Installation date</b>
<b>W.J. Bullock</b>	Crucible furnaces	Baghouse	3.891	2009
<b>McWane Pipe</b>	Charge handling area	Wet suppression	0.385	2008
<b>Sloss Industries</b>	Coal piles	Wet suppression	0.398	2008
<b>American Cast Iron Pipe</b>	Charge make-up	Wet suppression	11.91	20008
	Roads & process areas	Paving	3.58	2007/2008
	Cupola melting furnace	New Cupola/Bag house & spray suppression	5.84	2007/2008
	Sand & cement silos	Baghouse	0.09	2008
<b>Nucor Steel</b>	Meltshop fugitives	Baghouse & physical improvements	28.1	2008
<b>U.S. Pipe</b>	Cupola charge make-up	Wet suppression	1.818	2008
	Sand & cement silos	Bin vents	5.93	2008
<b>Total</b>			<b>61.942</b>	

In addition, closures of certain facilities have resulted in continued reductions of local PM<sub>2.5</sub> emissions in the Birmingham Area. In late 2009, W.J. Bullock and Sloss Mineral Wool in Jefferson County announced plans to cease operations, resulting in additional PM<sub>2.5</sub> emission reductions of 0.13 tpy and 130 tpy, respectively. In March 2010, U.S. Pipe ceased production, resulting in an additional emission reduction of 46 tpy of PM<sub>2.5</sub>. In total, the RACT controls and

facility closures amount to reductions of greater than eight percent of direct PM<sub>2.5</sub> point source emissions in Jefferson County.

Furthermore, control equipment installed at utilities in the Birmingham Area have decreased emissions of NO<sub>x</sub> and SO<sub>2</sub>. These reductions, prompted by the NO<sub>x</sub> SIP Call and CAIR, are summarized in Table 3 below. In 2007, flue gas desulfurization systems were added to units 8-10 of Alabama Power Company's (APC) Gorgas Plant in anticipation of CAIR. Selective catalytic reduction (SCR) systems were installed on units 3 and 4 at APC Miller Plant in 2003 as a result of the NO<sub>x</sub> SIP Call, with a consent decree requiring year round operation beginning in 2008 in preparation for CAIR. The year round SCR operation requirements have been incorporated into the facilities' title V operating permits and are thus enforceable.

**Table 3. Summary of Emissions and Controls at Utilities in the Birmingham Area<sup>6</sup>**

Facility	Date Control Installed		Emissions Reductions from 2006-2009 (tpy)		
	NO <sub>x</sub>	SO <sub>2</sub>	NO <sub>x</sub>	SO <sub>2</sub>	Percent
APC Miller Unit 3	2008		4,680		71
APC Miller Unit 4	2008		3,786		70
APC Gorgas Unit 8		2007		10,007	96
APC Gorgas Unit 9		2007		9,975	96
APC Gorgas Unit 10		2007		40,779	97
APC Gaston Unit 5*		2010		43,579	78
Total Reductions			8,466	104,341	

\* Gaston Unit 5 data reflects reductions from 2006-2010.

The Federal measures that have been implemented include the following:

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<sup>6</sup> Data in Tables 3 and 4 reflect reported actual emissions from the Clean Air Markets Division Database <http://camddataandmaps.epa.gov/gdm/index.cfm?fuseaction=emissions.wizard>.

*Tier 2 vehicle standards.* In addition to requiring NO<sub>x</sub> controls, the Tier 2 rule reduced the allowable sulfur content of gasoline to 30 parts per million (ppm) starting in January of 2006. Most gasoline sold in Alabama prior to this had a sulfur content of approximately 300 ppm.

*Heavy-duty gasoline and diesel highway vehicle standards.* The second phase of the standards and testing procedures, which began in 2007, reduces particulate matter (PM) and NO<sub>x</sub> from heavy-duty highway engines and also reduces highway diesel fuel sulfur content to 15 ppm. The total program is expected to achieve a 90 and 95 percent reduction in PM and NO<sub>x</sub> emissions from heavy-duty highway engines, respectively.

*Nonroad spark-ignition engines and recreational engines standards.* Tier 1 of this standard, implemented in 2004, and Tier 2, implemented in 2007, have reduced and will continue to reduce PM emissions.

*Large nonroad diesel engine standards.* Promulgated in 2004, this rule is being phased in between 2008 and 2014. This rule will reduce sulfur content in nonroad diesel fuel and, when fully implemented, will reduce NO<sub>x</sub> and direct PM<sub>2.5</sub> emissions by over 90 percent from these engines.

*NO<sub>x</sub> SIP Call.* On October 27, 1998 (63 FR 57356), EPA issued a NO<sub>x</sub> SIP Call requiring the District of Columbia and 22 states to reduce emissions of NO<sub>x</sub>. Affected states were required to comply with Phase I of the SIP Call beginning in 2004, and Phase II beginning in 2007. Emission reductions resulting from regulations developed in response to the NO<sub>x</sub> SIP Call are permanent and enforceable.

*CAIR and CSAPR.* As previously discussed, the remanded CAIR, originally promulgated to reduce transported pollution, was left in place to “temporarily preserve the environmental

values covered by CAIR” until EPA replaced it with a rule consistent with the Court's opinion. To remedy CAIR’s flaws, EPA promulgated the final CSAPR on August 8, 2011. CSAPR addresses the interstate transport requirements of the CAA with respect to the 1997 ozone, 1997 PM<sub>2.5</sub> and 2006 PM<sub>2.5</sub> NAAQS. As noted previously, the requirements of CAIR address emissions through the 2011 control period and CSAPR requires similar or greater emission reductions in the relevant areas in 2012 and beyond.

Because PM<sub>2.5</sub> concentrations in the Birmingham area are impacted by the transport of sulfates and nitrates, the area’s air quality is affected by regulation of SO<sub>2</sub> and NO<sub>x</sub> emissions from upwind power plants. Table 4, below, presents statewide EGU emissions data compiled by EPA’s Clean Air Markets Division for the years 2002 and 2009. Emissions for 2009 reflect implementation of CAIR. Table 4 shows that Alabama and states impacting the Birmingham Area for the Annual PM<sub>2.5</sub> NAAQS, as indicated in CSAPR, reduced NO<sub>x</sub> and SO<sub>2</sub> emissions from EGUs by 995,606 tpy and 1,901,135 tpy, respectively, between 2002 and 2009.

**Table 4. Comparison of 2002 and 2009 Statewide EGU NO<sub>x</sub> and SO<sub>2</sub> Emissions (tpy) for States Impacting the Birmingham Area for the Annual PM<sub>2.5</sub> NAAQS<sup>6</sup>**

State	NO <sub>x</sub>			SO <sub>2</sub>		
	2002	2009	Net Change 2002-2009	2002	2009	Net Change 2002-2009
<b>Alabama</b>	161,559	49,609	-111,950	448,248	277,972	-170,276
<b>Georgia</b>	146,456	57,566	-88,890	512,654	262,258	-250,396
<b>Illinois</b>	174,247	72,286	-101,961	353,699	229,364	-124,335
<b>Indiana</b>	281,146	110,969	-170,177	778,868	413,726	-365,142
<b>Kentucky</b>	198,599	78,767	-119,832	482,653	252,002	-230,651
<b>Ohio</b>	370,497	95,785	-274,712	1,132,069	600,687	-531,382
<b>Tennessee</b>	155,996	27,912	-128,084	336,995	108,042	-228,953
<b>Total</b>	<b>1,488,500</b>	<b>492,894</b>	<b>-995,606</b>	<b>4,045,186</b>	<b>2,144,051</b>	<b>-1,901,135</b>

As was noted earlier, EPA promulgated CSAPR to address interstate transport of emissions and resulting secondary air pollutants and to replace CAIR. CAIR, among other things, required emission reductions that contributed to the air quality improvement in the Birmingham Area. CSAPR requires substantial reductions of SO<sub>2</sub> and NO<sub>x</sub> emissions from EGUs across most of the Eastern United States, with implementation beginning on January 1, 2012. CAIR will continue to be implemented through 2011, and will be replaced by CSAPR beginning in 2012. CSAPR requires reductions of NO<sub>x</sub> and SO<sub>2</sub> emissions to levels below the levels that led to attainment of the 1997 24-hour PM<sub>2.5</sub> standard in the Birmingham Area. Given the remanded status of CAIR, air quality improvement from the EGU reductions could not be considered permanent at the time ADEM submitted its request for redesignation of the Birmingham Area. However, since that time CSAPR has been finalized, which mandates even greater reductions than have already occurred under CAIR and, more importantly, more reductions than are needed to maintain the standard in the Area. The reductions of EGU emissions of SO<sub>2</sub> and NO<sub>x</sub> contributed to the air quality improvement in the Birmingham Area. Therefore, the final promulgation of CSAPR, in combination with the other measures cited by Alabama and described above, ensure that the emission reductions that led the Area to attain the 1997 Annual PM<sub>2.5</sub> NAAQS can be considered permanent and enforceable for purposes of section 107(d)(3)(E)(iii).

***Criteria (4) - The Birmingham Area has a fully approved maintenance plan pursuant to section 175A of the CAA.***

For redesignating a nonattainment area to attainment, the CAA requires EPA to determine that the area has a fully approved maintenance plan pursuant to section 175A of the CAA (CAA section 107(d)(3)(E)(iv)). In conjunction with its request to redesignate the Birmingham Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS, ADEM submitted a SIP revision to provide for the maintenance of the 1997 Annual PM<sub>2.5</sub> NAAQS for at least 10 years after the effective date of redesignation to attainment. EPA believes this maintenance plan meets the requirements for approval under section 175A of the CAA.

*a. What is required in a maintenance plan?*

Section 175A of the CAA sets forth the elements of a maintenance plan for areas seeking redesignation from nonattainment to attainment. Under section 175A, the plan must demonstrate continued attainment of the applicable NAAQS for at least 10 years after the Administrator approves a redesignation to attainment. Eight years after the redesignation, the State must submit a revised maintenance plan which demonstrates that attainment will continue to be maintained for the 10 years following the initial 10-year period. To address the possibility of future NAAQS violations, the maintenance plan must contain contingency measures as EPA deems necessary to assure prompt correction of any future 1997 Annual PM<sub>2.5</sub> violations. The Calcagni Memorandum provides further guidance on the content of a maintenance plan, explaining that a maintenance plan should address five requirements: the attainment emissions inventory, maintenance demonstration, monitoring, verification of continued attainment, and a contingency plan. As is discussed more fully below, EPA finds that Alabama's maintenance

plan includes all the necessary components and is thus proposing to approve it as a revision to the Alabama SIP.

*b. Attainment Emissions Inventory*

The Birmingham Area attained the 1997 Annual PM<sub>2.5</sub> NAAQS based on monitoring data for the 3-year period from 2008-2010. Alabama selected 2009 as the attainment emissions inventory year. The attainment inventory identifies a level of emissions in the Area that is sufficient to attain the 1997 Annual PM<sub>2.5</sub> NAAQS. Alabama began development of the attainment inventory by first generating a baseline emissions inventory for the Birmingham Area. As noted above, the year 2009 was chosen as the base year for developing a comprehensive emissions inventory for direct PM<sub>2.5</sub> and the primary PM<sub>2.5</sub> precursors, SO<sub>2</sub> and NO<sub>x</sub>, for which projected emissions could be developed for 2012, 2015, 2018, 2021, and 2024. ADEM used actual point source emissions data for 2009 for all sources in Jefferson County and a majority of sources in Shelby County. The Visibility Improvement - State and Tribal Association of the Southeast (VISTAS) projected 2009 emissions were used only where actual emissions were unavailable. The projected inventory included with the maintenance plan estimates emissions forward to 2024, which is beyond the 10-year interval required in section 175A of the CAA. In addition to comparing the final year of the plan, 2024, to the base year, 2009, Alabama compared interim years to the baseline to demonstrate that these years are also expected to show continued maintenance of the Annual PM<sub>2.5</sub> standard.

The emissions inventory is composed of four major types of sources: point, area, on-road mobile and non-road mobile. The future year emissions inventories have been estimated using

projected rates of growth in population, traffic, economic activity, expected control programs, and other parameters. Due to the remand of CAIR, ADEM did not include any emissions reductions expected under the rule past 2012. Promulgation of CSAPR ensured that reductions expected under CAIR would remain, thus EPA considers ADEM's projections to be conservative estimates. Non-road mobile emissions estimates were based on the EPA's NONROAD2008a non-road mobile model, with the exception of the railroad locomotives, commercial marine, and aircraft engine. These emissions are estimated by taking activity data, such as landings and takeoffs, and multiplying by an Economic Growth Analysis System (EGAS) emission factor. On-road mobile source emissions were calculated using EPA's MOVES2010a mobile emission factors model. The 2009 SO<sub>2</sub>, NO<sub>x</sub> and PM<sub>2.5</sub> emissions for the Birmingham Area, as well as the emissions for other years, were developed consistent with EPA guidance and are summarized in Tables 5 through 8 of the following subsection discussing the maintenance demonstration.

*c. Maintenance Demonstration*

The May 2, 2011, final submittal includes a maintenance plan for the Birmingham nonattainment area. The maintenance plan:

- (i) Shows compliance with and maintenance of the Annual PM<sub>2.5</sub> standard by providing information to support the demonstration that current and future emissions of SO<sub>2</sub>, NO<sub>x</sub> and PM<sub>2.5</sub> remain at or below 2009 emissions levels.
- (ii) Uses 2009 as the attainment year and includes future emissions inventory projections for 2012, 2015, 2018, 2021, and 2024.

(iii) Identifies an “out year” at least 10 years (and beyond) after the time necessary for EPA to review and approve the maintenance plan. Per 40 CFR part 93, NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs were established for the last year (2024) of the maintenance plan (see section VI below).

(iv) Provides actual and projected emissions inventories, in tpy, for the Birmingham nonattainment area, as shown in Tables 5 through 8 below.

**Table 5. Actual and Projected Annual PM<sub>2.5</sub> Emissions (tpy) for the Birmingham Area**

<b>Sector</b>	<b>2009</b>	<b>2012</b>	<b>2015</b>	<b>2018</b>	<b>2021</b>	<b>2024</b>
<b>Point</b>	4,095.30	3,558.75	3,755.85	3,971.20	4,186.55	4,416.50
<b>Area</b>	4,507.75	4,445.70	4,515.05	4,588.05	4,664.70	4,737.70
<b>Nonroad</b>	584.00	543.85	481.80	419.75	383.25	365.00
<b>Mobile</b>	819.80	663.50	507.24	450.06	392.88	335.70
<b>Total</b>	10,006.85	9,211.80	9,259.94	9,429.06	9,627.38	9,854.90

**Table 6. Actual and Projected Annual NO<sub>x</sub> Emissions (tpy) for the Birmingham Area**

<b>Sector</b>	<b>2009</b>	<b>2012</b>	<b>2015</b>	<b>2018</b>	<b>2021</b>	<b>2024</b>
<b>Point</b>	35,131.25	35,189.65	35,773.65	36,375.90	37,102.25	37,846.85
<b>Area</b>	4,102.60	4,168.30	4,230.35	4,296.05	4,358.10	4,423.80
<b>Nonroad</b>	9,968.15	8,979.00	7,935.10	7,172.25	7,004.35	7,088.30
<b>Mobile</b>	24,991.13	19,980.14	14,969.14	12,892.21	10,815.28	8,738.39
<b>Total</b>	74,193.13	68,317.09	62,908.24	60,736.41	59,279.98	58,097.34

**Table 7. Actual and Projected Annual SO<sub>2</sub> Emissions (tpy) for the Birmingham Area**

<b>Sector</b>	<b>2009</b>	<b>2012</b>	<b>2015</b>	<b>2018</b>	<b>2021</b>	<b>2024</b>
<b>Point</b>	180,094.65	74,354.15	74,609.65	74,887.05	75,131.97	75,525.80
<b>Area</b>	386.90	397.85	405.15	416.10	423.40	434.35
<b>Nonroad</b>	182.50	73.00	69.35	69.35	69.35	73.00
<b>Mobile</b>	149.08	121.57	94.09	94.62	95.15	95.62

<b>Total</b>	180,813.13	74,946.57	75,178.24	75,467.12	75,719.87	76,128.77
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**Table 8. Emission Estimates for Birmingham Area**

<b>Year</b>	<b>PM<sub>2.5</sub> (tpy)</b>	<b>NO<sub>x</sub> (tpy)</b>	<b>SO<sub>2</sub> (tpy)</b>
<b>2009</b>	10,006.85	74,193.13	180,813.13
<b>2012</b>	9,211.80	68,317.09	74,946.57
<b>2015</b>	9,259.94	62,908.24	75,178.24
<b>2018</b>	9,429.06	60,736.41	75,467.12
<b>2021</b>	9,627.38	59,279.98	75,719.87
<b>2024</b>	9,854.90	58,097.34	76,128.77
<b>Difference from 2009 to 2024</b>	<b>-151.95</b>	<b>-16095.79</b>	<b>-104,684.36</b>

Tables 5 through 8 summarize the 2009 and future projected emissions of direct PM<sub>2.5</sub> and precursors from the counties in the Birmingham Area. In situations where local emissions are the primary contributor to nonattainment, the ambient air quality standard should not be violated in the future as long as emissions from within the nonattainment area remain at or below the baseline with which attainment was achieved. Alabama has projected emissions as described previously and determined that emissions in the Birmingham Area will remain below those in the attainment year inventory for the duration of the maintenance plan.

As discussed in section VI of this proposed rulemaking, a safety margin is the difference between the attainment level of emissions (from all sources) and the projected level of emissions (from all sources) in the maintenance plan. The attainment level of emissions is the level of emissions during one of the years in which the area met the NAAQS. Alabama selected 2009 as the attainment emissions inventory year for the Birmingham Area. Alabama calculated the safety margins in its submittal as 16,095.79 tpy for NO<sub>x</sub> and 151.95 tpy for PM<sub>2.5</sub>. The State has decided to allocate 7,243.11 tpy of the available NO<sub>x</sub> safety margin and 106.37 tpy of the available PM<sub>2.5</sub> safety margin to the 2024 MVEBs for the Birmingham Area. Therefore, the

remaining safety margin for NO<sub>x</sub> will be 8852.68 tpy and the remaining safety margin for PM<sub>2.5</sub> will be 45.58 tpy. This allocation and the resulting available safety margin for the Birmingham Area are discussed further in section VI of this proposed rulemaking.

*d. Monitoring Network*

There are currently ten monitors measuring PM<sub>2.5</sub> in the Birmingham Area. The State of Alabama, through ADEM, has committed to continue operation of the monitors in the Birmingham Area in compliance with 40 CFR part 58 and have thus addressed the requirement for monitoring. EPA approved Alabama's 2010 monitoring plan on October 8, 2010.

*e. Verification of Continued Attainment*

The State of Alabama, through ADEM, has the legal authority to enforce and implement the requirements of the Birmingham Area 1997 Annual PM<sub>2.5</sub> maintenance plan. This includes the authority to adopt, implement and enforce any subsequent emissions control contingency measures determined to be necessary to correct future PM<sub>2.5</sub> attainment problems.

ADEM will track the progress of the maintenance plan by performing future reviews of triennial emissions inventories for the Birmingham Area as required in the Air Emissions Reporting Rule (AERR) and Consolidated Emissions Reporting Rule (CERR). For these periodic inventories, ADEM will review the assumptions made for the purpose of the maintenance demonstration concerning projected growth of activity levels. If any of these assumptions appear to have changed substantially, then ADEM will re-project emissions for the Birmingham Area.

*f. Contingency Measures in the Maintenance Plan.*

The contingency measures are designed to promptly correct a violation of the NAAQS that occurs after redesignation. Section 175A of the CAA requires that a maintenance plan include such contingency measures as EPA deems necessary to assure that the state will promptly correct a violation of the NAAQS that occurs after redesignation. The maintenance plan should identify the contingency measures to be adopted, a schedule and procedure for adoption and implementation, and a time limit for action by the State. A state should also identify specific indicators to be used to determine when the contingency measures need to be implemented. The maintenance plan must include a requirement that a state will implement all measures with respect to control of the pollutant that were contained in the SIP before redesignation of the area to attainment in accordance with section 175A(d).

In the May 2, 2011, submittal, Alabama affirms that all programs instituted by the State and EPA will remain enforceable and that sources are prohibited from reducing emissions controls following the redesignation of the Area. The contingency plan included in the submittal includes a triggering mechanism to determine when contingency measures are needed and a process of developing and implementing appropriate control measures. The State of Alabama will use actual ambient monitoring data as the triggering event to determine when contingency measures should be implemented.

Alabama has identified a primary trigger as occurring when the Annual PM<sub>2.5</sub> NAAQS, as described in section II above, are violated. Alabama commits to adopting, within 18 months of a certified violation of the Annual PM<sub>2.5</sub> NAAQS, one or more of the control measures

discussed below. Additionally, Alabama has identified a secondary trigger to occur when the annual average PM<sub>2.5</sub> concentrations in a year at any individual monitor in the nonattainment area records a reading of 15.0 µg/m<sup>3</sup> or higher. In such a case, the state will evaluate existing controls measures and determine whether any further emission reduction measures should be implemented. ADEM will consider several factors in its evaluation of the need for additional controls measures in the event of a future year violation of the 1997 Annual PM<sub>2.5</sub> NAAQS. Depending on the timing of the future year violations, additional local and regional emissions reductions may still be planned. ADEM will evaluate the air quality impacts of those regulatory programs in determining if further reductions are required to ensure continued maintenance of the Annual PM<sub>2.5</sub> NAAQS in the Birmingham Maintenance Area.

In addition to the triggers indicated above, Alabama will monitor regional emissions through the CERR and AERR and compare them to the projected inventories and the attainment year inventory. If the actual emissions from these inventories are greater than ten percent above the projected emissions presented in the maintenance plan, than ADEM will evaluate whether additional planning or control measures are needed to prevent the Area from violating the NAAQS or to correct a potential violation.

In the event that further reductions are needed to ensure continued maintenance, the list of “culpable sources” developed by Alabama in the State’s 2009 Birmingham Annual PM<sub>2.5</sub> Attainment Demonstration SIP, submitted to EPA on March 13, 2009, will be evaluated for additional control of direct PM<sub>2.5</sub> emissions. Those sources are listed in Chapter 8 of the Attainment Demonstration SIP, which is included in the docket for this proposed rulemaking (EPA-R04-OAR-2011-0316). Chapter 8 contains the detailed contingency measures for the

Annual PM<sub>2.5</sub> SIP and was referenced in the redesignation request and maintenance plan for the Annual PM<sub>2.5</sub> NAAQS. Also in the event that further reductions are needed, ADEM will consider the possibility of expanding the current voluntary diesel retrofit program currently in place in the Birmingham Area.

Once a primary trigger is initiated, ADEM will commence analysis, including review of expected emissions reductions from local and regional regulatory programs, air quality modeling, and emissions inventory assessment to determine emission control measures that will be required to attain or maintain the 1997 Annual PM<sub>2.5</sub> NAAQS. All controls relied upon for contingency purposes are scheduled to be installed in 2012 or later and are therefore not already relied upon for maintenance. At least one of the following contingency measures will be adopted and implemented upon a primary triggering event:

- Continued implementation of previously adopted controls which have not yet been realized but are sufficient to address the violation, including future year emission reductions from Federal measures to address interstate pollutant transport and from the Georgia multi-pollutant rule;
- Additional controls of direct PM<sub>2.5</sub> emissions from the list of “culpable sources” developed in the Annual PM<sub>2.5</sub> attainment SIP;
- Expansion of the current voluntary diesel retrofit program in the Birmingham Area;
- Any additional controls deemed beneficial to address the violation at the time of the trigger.

The schedule for implementation of this plan and details of steps ADEM will take to bring the area back into compliance are outlined in Table 9 below.

**Table 9. Schedule for Permit Revisions and/or Rule Revisions for Implementing Contingency Measures**

<b>Step</b>	<b>Description of Action</b>	<b>Schedule</b>
1	Identify and quantify the emissions reductions expected to result from current and future state and Federal regulatory programs.	3 months
2	Use the best available air quality modeling to evaluate the air quality improvement expected from step 1 above.	6 months
3	Draft any needed permit conditions or SIP regulations.	3 months
4	Complete rulemaking or permit revision process and submit to EPA	6 months
Maximum time required for completion		18 months

EPA has concluded that the maintenance plan adequately addresses the five basic components of a maintenance plan: attainment inventory, monitoring network, verification of continued attainment, and a contingency plan. Therefore, the maintenance plan SIP revision submitted by the State of Alabama for the Birmingham Area meets the requirements of section 175A of the CAA and is approvable.

#### **VI. What is EPA’s Analysis of Alabama’s Proposed NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for the Birmingham Area?**

Under section 176(c) of the CAA, new transportation plans, programs, and projects, such as the construction of new highways, must “conform” to (i.e., be consistent with) the part of the

state's air quality plan that addresses pollution from cars and trucks. Conformity to the SIP means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS or any interim milestones. If a transportation plan does not conform, most new projects that would expand the capacity of roadways cannot go forward. Regulations at 40 CFR part 93 set forth EPA policy, criteria, and procedures for demonstrating and assuring conformity of such transportation activities to a SIP. The regional emissions analysis is one, but not the only, requirement for implementing transportation conformity. Transportation conformity is a requirement for nonattainment and maintenance areas. Maintenance areas are areas that were previously nonattainment for a particular NAAQS but have since been redesignated to attainment with an approved maintenance plan for that NAAQS.

Under the CAA, states are required to submit, at various times, control strategy SIPs and maintenance plans for nonattainment areas. These control strategy SIPs (including RFP and attainment demonstration) and maintenance plans create MVEBs for criteria pollutants and/or their precursors to address pollution from cars and trucks. Per 40 CFR part 93, a MVEB must be established for the last year of the maintenance plan. A state may adopt MVEBs for other years as well. The MVEB is the portion of the total allowable emissions in the maintenance demonstration that is allocated to highway and transit vehicle use and emissions. *See* 40 CFR 93.101. The MVEB serves as a ceiling on emissions from an area's planned transportation system. The MVEB concept is further explained in the preamble to the November 24, 1993, Transportation Conformity Rule (58 FR 62188). The preamble also describes how to establish the MVEB in the SIP and how to revise the MVEB.

After interagency consultation with the transportation partners for the Birmingham Area, Alabama has elected to develop MVEBs for NO<sub>x</sub> and PM<sub>2.5</sub> for the entire nonattainment area (Jefferson, Shelby, and the nonattainment portion of Walker Counties). Alabama is developing these MVEBs, as required, for the last year of its maintenance plan, 2024. The MVEBs reflect the total on-road emissions for 2024, plus an allocation from the available NO<sub>x</sub> and PM<sub>2.5</sub> safety margin. Under 40 CFR 93.101, the term “safety margin” is the difference between the attainment level (from all sources) and the projected level of emissions (from all sources) in the maintenance plan. The safety margin can be allocated to the transportation sector; however, the total emissions must remain below the attainment level. The NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs and allocation from the safety margin were developed in consultation with the transportation partners and were added to account for uncertainties in population growth, changes in model vehicle miles traveled and new emission factor models. The NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for the Birmingham Area are defined in Table 10 below.

**Table 10. Birmingham Area PM<sub>2.5</sub> NO<sub>x</sub> MVEBs (tpy)**

	<b>PM<sub>2.5</sub></b>	<b>NO<sub>x</sub></b>
2024 On-road Mobile Emissions (tpy)	335.7	8,738.39
Safety Margin Allocated to MVEB	106.37	7,243.11
<b>2024 Conformity MVEB</b>	<b>442.07</b>	<b>15,981.50</b>

As mentioned above, the Birmingham Area has chosen to allocate a portion of the available safety margin to the NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for 2024. This allocation is 7,243.11 tpy

and 106.37 tpy for NO<sub>x</sub> and PM<sub>2.5</sub>, respectively. Thus, the remaining safety margins for 2024 are 8,852.68 tpy and 45.58 tpy for NO<sub>x</sub> and PM<sub>2.5</sub>, respectively.

Through this rulemaking, EPA is proposing to approve the MVEBs for NO<sub>x</sub> and PM<sub>2.5</sub> for 2024 for the Birmingham Area because EPA has determined that the Area maintains the 1997 Annual PM<sub>2.5</sub> NAAQS with the emissions at the levels of the budgets. Once the MVEBs for the Birmingham Area are approved or found adequate (whichever is completed first), they must be used for future conformity determinations. After thorough review, EPA has determined that the budgets meet the adequacy criteria, as outlined in 40 CFR 93.118(e)(4), and is proposing to approve the budgets because they are consistent with maintenance of the 1997 Annual PM<sub>2.5</sub> NAAQS through 2024.

## **VII. What is the Status of EPA’s Adequacy Determination for the Proposed NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for 2024 for the Birmingham Area?**

When reviewing submitted “control strategy” SIPs or maintenance plans containing MVEBs, EPA may affirmatively find the MVEB contained therein adequate for use in determining transportation conformity. Once EPA affirmatively finds the submitted MVEB is adequate for transportation conformity purposes, that MVEB must be used by state and Federal agencies in determining whether proposed transportation projects conform to the SIP as required by section 176(c) of the CAA.

EPA’s substantive criteria for determining adequacy of a MVEB are set out in 40 CFR 93.118(e)(4). The process for determining adequacy consists of three basic steps: public notification of a SIP submission, a public comment period, and EPA’s adequacy determination.

This process for determining the adequacy of submitted MVEBs for transportation conformity purposes was initially outlined in EPA's May 14, 1999, guidance, "Conformity Guidance on Implementation of March 2, 1999, Conformity Court Decision." EPA adopted regulations to codify the adequacy process in the Transportation Conformity Rule Amendments for the "New 8-Hour Ozone and PM<sub>2.5</sub> National Ambient Air Quality Standards and Miscellaneous Revisions for Existing Areas; Transportation Conformity Rule Amendments - Response to Court Decision and Additional Rule Change," on July 1, 2004 (69 FR 40004). Additional information on the adequacy process for transportation conformity purposes is available in the proposed rule entitled, "Transportation Conformity Rule Amendments: Response to Court Decision and Additional Rule Changes," 68 FR 38974, 38984 (June 30, 2003).

As discussed earlier, Alabama's maintenance plan submission includes NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for the Birmingham Area for 2024, the last year of the maintenance plan. EPA reviewed the NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs through the adequacy process. The Alabama SIP submission, including the Birmingham Area NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs, was open for public comment on EPA's adequacy Web site on March 24, 2011, found at: <http://www.epa.gov/otaq/stateresources/transconf/currrips.htm>. The EPA public comment period on adequacy for the MVEBs for 2024 for Birmingham Area closed on April 25, 2011. EPA did not receive any comments on the adequacy of the MVEBs, nor did EPA receive any requests for the SIP submittal.

EPA intends to make its determination on the adequacy of the 2024 MVEBs for the Birmingham Area for transportation conformity purposes in the near future by completing the adequacy process that was started on March 24, 2011. After EPA finds the 2024 MVEBs

adequate or approves them, the new MVEBs for NO<sub>x</sub> and PM<sub>2.5</sub> must be used for future transportation conformity determinations. For required regional emissions analysis years that involve 2024 or beyond, the applicable budgets will be the new 2024 MVEBs established in the maintenance plan, as defined in section VI of this proposed rulemaking.

### **VIII. What is EPA’s Analysis of the Proposed 2009 Base Year Emissions Inventory for the Birmingham Area?**

As discussed above, section 172(c)(3) of the CAA requires areas to submit a base year emissions inventory. As part of Alabama’s request to redesignate the Birmingham Area, the State submitted a 2009 base year emissions inventory to meet this requirement. Emissions contained in the submittal cover the general source categories of point sources, area sources, on-road mobile sources, and non-road mobile sources. All emission summaries were accompanied by source-specific descriptions of emission calculation procedures and sources of input data. Alabama’s submittal documents 2009 emissions in the Birmingham Area in units of tpy. Table 11, below, provides a summary of the 2009 emissions of direct PM<sub>2.5</sub>, NO<sub>x</sub>, and SO<sub>2</sub> for the Birmingham Area. In today’s notice, EPA is proposing to approve this 2009 base year inventory as meeting the section 172(c)(3) emissions inventory requirement.

**Table 11. Birmingham Area 2009 Emissions for PM<sub>2.5</sub>, NO<sub>x</sub>, and SO<sub>2</sub> (tpy [percent total])**

Source	PM <sub>2.5</sub>	NO <sub>x</sub>	SO <sub>2</sub>
Point Source Total	4,095.30 [40.9]	35,131.25 [47.4]	180,094.65 [99.6]
Area Source Total	4,507.75 [45.0]	4,102.60 [5.5]	386.90 [0.2]
On-Road Mobile Source Total	819.80 [8.2]	24,991.13 [33.7]	149.08 [0.1]

Non-Road Mobile Source Total	584.00 [5.8]	9,968.15 [13.4]	182.50 [0.1]
<b>Total for all Sources</b>	<b>10,006.85</b>	<b>74,193.13</b>	<b>180,813.13</b>

## **IX. What is the Effect of EPA’s Proposed Actions?**

EPA’s proposed actions establish the basis upon which EPA may take final action on the issues being proposed for approval today. Approval of Alabama’s redesignation request would change the legal designation of Jefferson and Shelby Counties and the designated portion of Walker County in Alabama for the 1997 Annual PM<sub>2.5</sub> NAAQS, found at 40 CFR part 81, from nonattainment to attainment. Approval of Alabama’s request would also incorporate a plan for maintaining the 1997 Annual PM<sub>2.5</sub> NAAQS in the Birmingham Area through 2024 into the Alabama SIP. This maintenance plan includes contingency measures to remedy any future violations of the 1997 Annual PM<sub>2.5</sub> NAAQS and procedures for evaluation of potential violations. The maintenance plan also establishes NOx and PM<sub>2.5</sub> MVEBs for the Birmingham Area. The NOx and PM<sub>2.5</sub> MVEBs for 2024 for the Birmingham Area are 15,981.50 tpy and 442.07 tpy, respectively. Final action would also approve the Area’s emissions inventory under section 172(c)(3). Additionally, EPA is notifying the public of the status of EPA’s adequacy determination for the newly-established PM<sub>2.5</sub> and NOx MVEBs for 2024 for the Birmingham Area.

## **X. Proposed Actions on the Redesignation Request and Maintenance Plan SIP Revisions Including Approval of the NOx and PM<sub>2.5</sub> MVEBs for 2024 for the Birmingham Area.**

EPA previously determined that the Birmingham Area was attaining the 1997 Annual PM<sub>2.5</sub> NAAQS on June 29, 2011, at 76 FR 38023. EPA is now taking three separate but related actions regarding the Area's redesignation and maintenance of the 1997 Annual PM<sub>2.5</sub> NAAQS.

First, EPA is proposing to determine, based on complete, quality-assured and certified monitoring data for the 2008 – 2010 monitoring period, and after review of preliminary data in AQS for 2011, that the Birmingham Area continues to attain the 1997 Annual PM<sub>2.5</sub> NAAQS. EPA is proposing to determine that the Birmingham Area has met the criteria under CAA section 107(d)(3)(E) for redesignation from nonattainment to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS. On this basis, EPA is proposing to approve Alabama's redesignation request for the Birmingham Area.

Second, EPA is proposing to approve Alabama's 2009 emissions inventory for the Birmingham Area (under CAA section 172(c)(3)). Alabama selected 2009 as the attainment emissions inventory year for the Birmingham Area. This attainment inventory identifies a level of emissions in the Area that is sufficient to attain the 1997 Annual PM<sub>2.5</sub> NAAQS and also is a current, comprehensive inventory that meets the requirements of section 172(c)(3).

Third, EPA is proposing to approve the maintenance plan for the Birmingham Area, including the PM<sub>2.5</sub> and NO<sub>x</sub> MVEBs for 2024, into the Alabama SIP (under CAA section 175A). The maintenance plan demonstrates that the Area will continue to maintain the 1997 Annual PM<sub>2.5</sub> NAAQS, and the budgets meet all of the adequacy criteria contained in 40 CFR 93.118(e)(4) and (5). Further, as part of today's action, EPA is describing the status of its adequacy determination for the PM<sub>2.5</sub> and NO<sub>x</sub> MVEBs for 2024 in accordance with 40 CFR 93.118(f)(1). Within 24 months from the effective date of EPA's adequacy determination for the

MVEBs or the effective date for the final rule for this action, whichever is earlier, the transportation partners will need to demonstrate conformity to the new NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs pursuant to 40 CFR 93.104(e).

If finalized, approval of the redesignation request would change the official designation of Jefferson and Shelby Counties in their entireties and the nonattainment portion of Walker County in the Birmingham Area for the 1997 Annual PM<sub>2.5</sub> NAAQS, found at 40 CFR part 81, from nonattainment to attainment.

## **XI. Statutory and Executive Order Reviews**

Under the CAA, redesignation of an area to attainment and the accompanying approval of a maintenance plan under section 107(d)(3)(E) are actions that affect the status of a geographical area and do not impose any additional regulatory requirements on sources beyond those imposed by state law. A redesignation to attainment does not in and of itself create any new requirements, but rather results in the applicability of requirements contained in the CAA for areas that have been redesignated to attainment. Moreover, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this proposed action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For this reason, these proposed actions:

- are not "significant regulatory action[s]" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- do not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- are certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- do not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- do not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- are not economically significant regulatory actions based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- are not significant regulatory actions subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- are not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- do not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

## **List of Subjects**

### **40 CFR Part 52**

Environmental protection, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements, and Particulate matter.

### **40 CFR Part 81**

Environmental protection, Air pollution control.

Authority: 42 U.S.C. 7401 et seq.

Dated: November 2, 2011

Gwendolyn Keyes Fleming

Regional Administrator,

Region 4.